

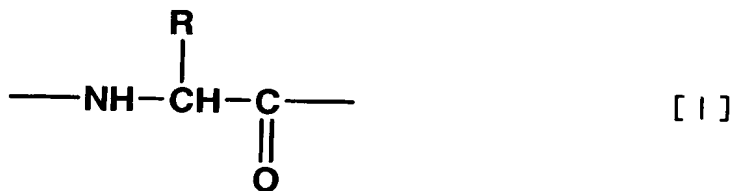
Claims

1. Sustained-release polymer for amino acid derivative, characterized in that, a polymer containing acidic group is ionically bonded to an amino acid derivative.

2. The sustained-release polymer for amino acid derivative according to claim 1, wherein eluting rate (α) of the amino acid derivative when the polymer is dipped in an artificial sweat liquid is 10% or more and is five times or more of the eluting rate (β) of the amino acid derivative when the polymer is dipped in pure water.

3. The sustained-release polymer for amino acid derivative according to claim 1 or 2, wherein the polymer is able to be regenerated when a solution of the amino acid derivative is impregnated thereinto after release of the amino acid derivative.

4. The sustained-release polymer for amino acid derivative according to any of claims 1 to 3, wherein the amino acid derivative has the structure as shown by the following formula [I] in its molecule.



(R is a group having one or more basic functional group(s).)

5. The sustained-release polymer for amino acid

derivative according to any of claims 1 to 4, wherein the amino acid derivative is a basic amino acid.

6. The sustained-release polymer for amino acid derivative according to any of claims 1 to 5, wherein the amino acid derivative is at least one member selected from the group consisting of arginine, lysine and histidine.

7. The sustained-release polymer for amino acid derivative according to any of claims 1 to 6, wherein the polymer containing acidic group has a saturated hygroscopic degree of 20% by weight or more under the condition of 20°C × 65% RH.

8. The sustained-release polymer for amino acid derivative according to any of claims 1 to 7, wherein the polymer containing acidic group has a carboxyl group.

9. The sustained-release polymer for amino acid derivative according to any of claims 1 to 8, wherein the polymer containing acidic group is a polymer of an acrylic acid type.

10. The sustained-release polymer for amino acid derivative according to any of claims 1 to 9, wherein the polymer containing acidic group has a cross-linked structure.

11. The sustained-release polymer for amino acid derivative according to claim 10, wherein the cross-linked structure is formed by the reaction of nitrile group with a hydrazine type compound.

12. The sustained-release polymer for amino acid derivative according to claim 10, wherein the cross-linked structure is formed by copolymerization of a cross-linking vinyl monomer.

13. The sustained-release polymer for amino acid derivative according to any of claims 1 to 12, wherein the

polymer containing acidic group is in particles.

14. The sustained-release polymer for amino acid derivative according to any of claims 1 to 11, wherein the polymer containing acidic group is fibrous.

15. A method for the manufacture of the sustained-release polymer for amino acid derivative mentioned in any of claims 1 to 14, characterized in that, a solution of amino acid derivative is added to a polymer containing acidic group and then the polymer is dried at 40 to 100°C.

16. A cosmetic containing the sustained-release polymer for amino acid derivative mentioned in claim 13.

17. A fiber structure containing the sustained-release polymer for amino acid derivative mentioned in claim 13 or 14.

18. The fiber structure according to claim 17, wherein the fiber structure is selected from underwear, stomach band, supporter, mask, gloves, socks, stockings, pajama, bathrobe, towel, mat and bedclothes.

19. A method for the manufacture of the fiber structure mentioned in claim 17 or 18, characterized in that, a solution of amino acid derivative is added to a material fiber structure which contains a polymer containing acidic group and then the fiber structure is dried at 40 to 100°C.

20. A method for regeneration of a sustained-release polymer for amino acid derivative, characterized in that, a solution of amino acid derivative is added to the sustained-release polymer for amino acid derivative mentioned in any of claims 1 to 14 or to the fiber structure mentioned in claim 17 or 18 in which amount of the amino acid derivative bonded thereto has lowered as a result of use and then the polymer

or the fiber structure is dried.